THE ECONOMICS OF UNE PRICING

PRESENTATION TO FCC STAFF

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SUMMARY

- 1. Two main reasons why TELRIC methodology produces cost estimates that are too low:
 - ▶ Blank slate/snapshot approach ignores costs that no real carrier can avoid, even if the carrier is perfectly efficient.
 - Hypothetical nature of calculation gives state commissions discretion to lower prices below compensatory levels and they have predictable short-run incentives to do so.

2. Problems this creates:

- > inadequate incentives for ILEC investment.
- distorted incentives for CLEC investment and entry.

3. Empirical Evidence

- ➤ UNE prices are lower than actual costs for most states and significantly lower than actual costs for many states.
- ➤ UNE prices vary widely between states with fairly similar cost conditions. This provides powerful evidence that the TELRIC process gives state commissions discretion to set costs at levels other than costs and that at least some states have taken advantage of this discretion by doing so.
- Uneconomically low UNE prices distort CLEC deployment away from facilities in favor of UNE-P.
- 4. For purposes of setting UNE prices, costs should be calculated based on a network design that more closely reflects the ILEC's actual network.

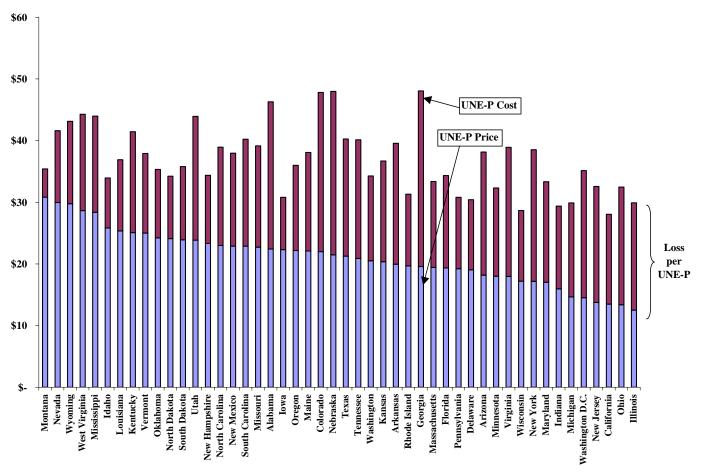
PROBLEMS WITH THE BLANK SLATE/SNAPSHOT APPROACH

- 1. Ignores the fact that an ILEC cannot costlessly reconfigure its outside plant to respond to shifts in population or changes in population density.
- 2. Ignores the fact that an ILEC cannot build a new plant every year taking advantage of the most recent changes in technology because:
 - > assets are long-lived and therefore any real carrier will inevitably use a range of vintages of assets.
 - introduction of new technologies is constrained by need to preserve interoperability with existing technologies.

PROBLEMS WITH THE HYPOTHETICAL NATURE OF CALCULATION

- 1. Current calculation is "hypothetical" and thus allows regulators to disengage cost estimates from real cost histories, data, or benchmarks
 - permits regulators to ignore real constraints placed on the ILEC by topography and existing structures.
 - allows regulators to model the ILEC as using very different technologies than it actually uses.
 - deputizes regulators to determine that the ILEC is arbitrarily inefficient and to reduce cost estimates below actual costs.
- 2. Basic principle of regulatory design is that
 - when a regulated firm must invest in sunk assets regulators will have predictable short-run incentives to lower prices below costs once the regulated firm has invested in sunk assets.
 - > good regulatory institutions must provide regulators with a credible commitment to reimburse the regulated firm for its sunk assets or the firm will be unwilling to invest in the first place.
 - basing prices more closely on what it "does" cost instead of what it "should" cost accomplishes this.

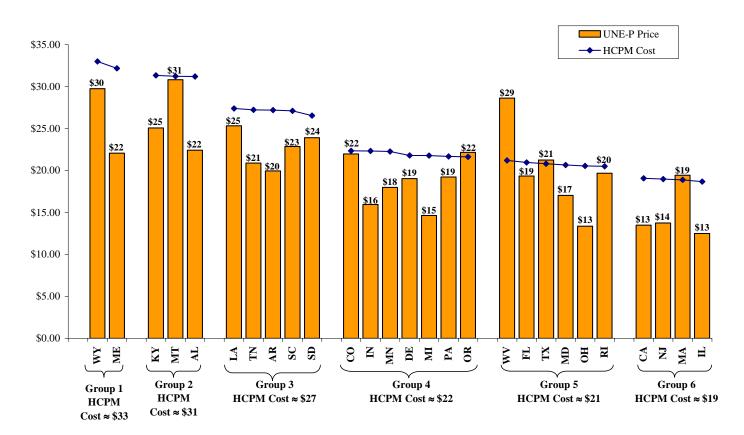
UNE-P PRICE VERSUS ACTUAL, ARMIS-BASED COSTS



Sources: ARMIS cost from FCC ARMIS files (www.fcc.gov) (2002) adjusted by LECG to obtain total wholesale (UNE) expenses and investment; prices from Anna-Maria Kovacs et al, "The Status of 271 and UNE-Platform in the Regional Bells' Territories," Commerce Capital Markets Equity Research, November 8, 2002, updated by LECG using data from Billy Jack Gregg, "A Survey of Unbundled Network Element Prices in the United States (Updated January 2004)," National Regulatory Research Institute.

- UNE prices are below actual costs in all 48 states studied.
- ➤ On average UNE prices are 52% of actual costs and the average deficit between price and cost is \$16.88 per line per month.
- ➤ On average, across the nation, it would take over **ten years** for the ILEC, given its actual costs, to reach the level of costs implied by its TELRIC prices, given the FCC's productivity factor of 6% per year.

UNE PRICES VARY WIDELY BETWEEN STATES IN WAYS THAT CANNOT BE EXPLAINED BY COST DRIVERS

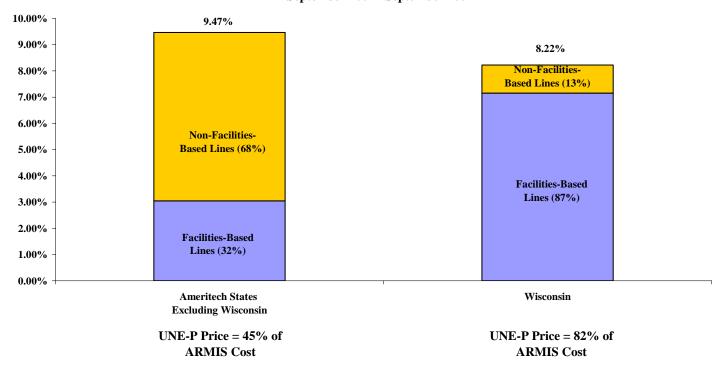


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- Over half of national cross-sectional variation in prices cannot be explained by cost drivers (HCPM, ARMIS and density together).
- > Cost drivers cannot predict within \$9 the UNE-P price (range at one standard deviation from prediction mean is \$9 on average).

BELOW-COST UNE PRICES DISTORT CLEC PROVISIONING DECISIONS

Penetration Growth as Percent of ILEC Retail Lines September 2001 - September 2002



Sources: LECG Analysis of Wholesale Data; ARMIS cost from FCC ARMIS files (www.fcc.gov) (2002) adjusted by LECG to obtain total wholesale (UNE) expenses and investment; prices from Anna-Maria Kovacs et al, "The Status of 271 and UNE-Platform in the Regional Bells' Territories," Commerce Capital Markets Equity Research, November 8, 2002.

- Total line growth was roughly **the same** as percent of ILEC lines, but composition of lines was vastly different.
- > Trend in Wisconsin has shifted toward UNE-P since UNE-price decreases in Wisconsin in July 2003.